In the Claims:

1. (Withdrawn) A method for vector descriptor representation and multimedia data retrieval, the method comprising:

a quantization step of quantizing a plurality of feature values described by a vector descriptor respectively;

a bit representation step of representing each of the quantized feature values in the form of bit;

a bit rearrangement step of rearranging the feature values represented in the form of bit from the highest bit to the lowest bit and representing the vector descriptor hierarchically;

a variable-length coding step of coding in variable length and storing the rearranged feature values and the number of feature values which are input;

a variable-length inversely coding step of inversely coding only the feature values corresponding to the number of the feature values of the stored feature values;

a bit inverse arrangement step of inversely arranging the inversely coded feature values and restoring to original feature values;

an inverse quantization step of inversely quantizing the restored feature values;

a comparison step of comparing the feature values restored by the inverse quantization with the feature values stored in a multimedia database and retrieving multimedia data.

2. (Original) A method for vector descriptor representation and multimedia data retrieval, the method comprising:

an orthogonal transformation step of orthogonally transforming feature values described by a vector descriptor;

a feature value representation step of representing the transformed feature values from low frequency feature to high frequency feature;

a quantization step of quantizing the feature values represented in the feature value representation step;

a variable-length coding step of variable-length coding and storing the quantized feature values and the number of feature values which are input;

a variable-length inversely coding step of extracting the feature values corresponding to the number of the feature values of the stored feature values and inversely coding the extracted feature values;

an inverse quantization step of inversely quantizing the feature values inversely coded;

an inversely orthogonal transformation step of inversely and orthogonally transforming the inversely quantized feature values and restoring to original feature; and a comparison step of comparing the restored feature values with feature values stored in a multimedia database and retrieving multimedia data.

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- 3. (Original) The method as claimed in claim 2, wherein the orthogonal transformation in the orthogonal transformation step uses DCT (Descrete Cosine Transform).
- 4. (Original) The method as claimed in claim 2, wherein the orthogonal transformation in the orthogonal transformation step uses DST (Discrete Sine Transform).
- 5. (Original) The method as claimed in claim 2, wherein the orthogonal transformation in the orthogonal transformation step uses DFT (Discrete Fourier Transform).
- 6. (Original) The method as claimed in claim 2, wherein the orthogonal transformation in the orthogonal transformation step uses Haar
- 7. (Original) The method as claimed in claim 2, wherein the orthogonal transformation in the orthogonal transformation step uses Wavelet.
- 8. (Original) The method as claimed in claim 2, wherein the inversely orthogonal transformation in the inversely orthogonal transformation step uses inverse DCT.

- 9. (Original) The method as claimed in claim 2, wherein the inversely orthogonal transformation in the inversely orthogonal transformation step uses inverse DST.
- 10. (Original) The method as claimed in claim 2, wherein the inversely orthogonal transformation in the inversely orthogonal transformation step uses inverse DFT.
- 11. (Original) The method as claimed in claim 2, wherein the inversely orthogonal transformation in the inversely orthogonal transformation step uses inverse Haar.
- 12. (Original) The method as claimed in claim 2, wherein the inversely orthogonal transformation in the inversely orthogonal transformation step uses inverse Wavelet.
- 13. (Withdrawn) An apparatus for vector descriptor representation and multimedia data retrieval, the apparatus comprising:
- a quantization unit for quantizing a plurality of feature values described by a vector descriptor respectively;

a bit representing unit for representing each of the quantized feature values in the form of bit;

a bit rearranging unit for rearranging the feature values represented in the form of bit from the highest bit to the lowest bit and representing the vector descriptor hierarchically;

a variable-length coding unit for coding in variable length and storing the rearranged feature values and the number of feature values which are input;

a variable-length inversely coding unit for inversely coding only the feature values corresponding to the number of the feature values of the stored feature values;

a bit inverse arranging unit for inversely arranging the inversely coded feature values and restoring to original feature values;

an inverse quantization unit for inversely quantizing the restored feature values;

a comparing unit for comparing the feature values restored by the inverse quantization with the feature values stored in a multimedia database and retrieving multimedia data.

14. (Original) An apparatus for vector descriptor representation and multimedia data retrieval, the apparatus comprising:

an orthogonal transformation unit for orthogonally transforming feature values described by a vector descriptor;

a feature value representing unit for representing the transformed feature values from low frequency feature to high frequency feature;

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a quantization unit for quantizing the feature values represented in the feature value representation step;

a variable-length coding unit for variable-length coding and storing the quantized feature values and the number of the feature values which are input;

a variable-length inversely coding unit for extracting the feature values corresponding to the number of the feature values of the stored feature values and inversely coding the extracted feature values;

an inverse quantization unit for inversely quantizing the feature values inversely coded;

an inversely orthogonal transformation unit for inversely and orthogonally transforming the inversely quantized feature values and restoring to original feature; and a comparing unit for comparing the restored feature values with feature values stored in a multimedia database and retrieving multimedia data.

- 15. (Original) The apparatus as claimed in claim 14, wherein the orthogonal transformation in the orthogonal transformation unit uses DCT (Descrete Cosine Transform).
- 16. (Original) The apparatus as claimed in claim 14, wherein the orthogonal transformation in the orthogonal transformation unit uses DST (Discrete Sine Transform).

- 17. (Original) The apparatus as claimed in claim 14, wherein the orthogonal transformation in the orthogonal transformation unit uses DFT (Discrete Fourier Transform).
- 18. (Original) The apparatus as claimed in claim 14, wherein the orthogonal transformation in the orthogonal transformation unit uses Haar
- 19. (Original) The apparatus as claimed in claim 14, wherein the orthogonal transformation in the orthogonal transformation unit uses Wavelet.
- 20. (Original) The apparatus as claimed in claim 14, wherein the inversely orthogonal transformation in the inversely orthogonal transformation unit uses inverse DCT.
- 21. (Original) The apparatus as claimed in claim 14, wherein the inversely orthogonal transformation in the inversely orthogonal transformation unit uses inverse DST.
- 22. (Original) The apparatus as claimed in claim 14, wherein the inversely orthogonal transformation in the inversely orthogonal transformation unit uses inverse DFT.

- 23. (Original) The apparatus as claimed in claim 14, wherein the inversely orthogonal transformation in the inversely orthogonal transformation unit uses inverse Haar.
- 24. (Original) The apparatus as claimed in claim 14, wherein the inversely orthogonal transformation in the inversely orthogonal transformation unit uses inverse Wavelet.